Admiral Stansfield Turner

THE NAVAL BALANCE: NOT JUST A NUMBERS GAME

Comparisons of the seagoing armed forces of the Soviet Union and the United States are much in the news nowadays, and they are much in what happens behind the news. When our Secretary of State visits Moscow, or shuttles between capitals in Africa or the Middle East, he doubtless does not dwell on specific comparisons of military forces in his political talks, but the armed strength of our nation resonates in his words. Foreign policy transcends military capability, yet that capability tends to limit choices. Great wasteful wars have broken out in our century partly because of misperceived comparisons of armed forces. And war is as often a collapse as it is a continuation of foreign policy.

In offering a professional appraisal of the process of measuring the naval balance and of the relative present strengths of the two navies, I can give no answer either wholly comforting or wholly alarming to the usual, brusque question, "Let's get down to brass tacks. Who's ahead, Admiral?" My general tenor will be, rather, to focus on two questions addressed to people who think seriously about foreign policy: "What do you mean by 'ahead'?" and "How far 'ahead' will suit you, for foreign policy purposes?"

The argument from the facts will tend this way: that as a seagoing power, we are moving into a shrinking range of political options, and a higher level of risk. For this there are two reasons: a major industrial power, the Soviet Union, is building up a navy with dogged determination, reacting to its perception of a threat from our once-overwhelming armed superiority at sea; and meantime there is growing competition at home for military expenditures, especially when there are so many social demands on our national resources. This article will attempt to define our present capabilities for performing the various missions of a sea force in the light of these two crisscrossing trends. Clearing away misconceptions will be much of the task, and will enable us to focus on what really matters in naval

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strength when the foreign policy chips go down on the table.

II

But how do you measure the comparative quality of navies? There has been much talk recently of an imbalance. We even hear Paul Revere-style rhetoric: "The United States is being left behind with a second-rate navy!" We hear comparably authoritative statistics, quoted with equal vehemence and positive pride, proving: "We're way out front." Congress and the public stand in between—one being asked to enact legislation affecting the size and quality of the Navy, the other being asked to finance those changes. Whom should they believe?

The problem is often addressed as though it were amenable to a straightforward count of ships, airplanes and submarines on both sides, a comparison of absolutes. The Soviet Navy either has 255 attack submarines or it hasn't. Compared to the 73 attack submarines of the United States, the Soviet Union would seem to have a clear advantage. But, then, how does one weigh the fact that the United States has 13 attack aircraft carriers while the Soviet Union has none? Does this compensate in some way for our lack of submarines? A purely quantitative comparison clearly fails to tell us what we want to know. What one navy requires may not be what another needs, if their missions differ. Submarines, for instance, are not necessarily pitted against each other. The question is, rather, to determine what the submarines of each side are assigned to accomplish.

Thus, the first step in judging the naval balance between the United States and the Soviet Union is to understand what each of the two nations requires of its navy. Only then can we be sure that we are comparing opposed commensurables. Let us start by examining how the Soviet Navy came to be what it is today.

III

The Soviet Navy began to emerge as a significant naval force only after World War II. Navy expansion, begun in the early 1900s and interrupted by the Second World War, was not able to regain its initial momentum until the late 1940s. At that time the principal threat perceived by the Soviets was from U.S. aircraft carriers. Aircraft from these carriers could project military power onto the Soviet mainland from a distance of hundreds of miles at sea. To counter this threat, the Soviets had only a small navy, designed for coastal defense and largely inexperienced in deep ocean warfare. An accelerated shipbuilding program was begun, at first producing mainly

conventionally-powered submarines and gun cruisers. The inclination was quickly to amass as many ships with as much traditional power as possible.

Soon afterward, however, missile development took on greater importance. Missiles offered a relatively inexpensive yet very effective counterweapon to the large, highly sophisticated carriers. The Soviets clearly hoped that adapting this new technology to naval warfare would enable them to offset the American numerical advantage. Thus, tactical cruise missiles were deployed on surface ships of all sizes, and large-scale production was undertaken.[1]

The introduction of nuclear power in the submarine further refined and strengthened a rapidly growing Soviet undersea fleet, which reached a high of over 400 units in the early 1970s. The guided missile submarine, first developed in the 1950s, was an important incremental advance; both diesel and nuclear versions went to sea in the 1960s. With their capability to launch missiles against carriers or other surface ships while remaining submerged, they quickly became a potent antiship system.

Then, in the early 1960s, the first operational U.S. nuclear-powered submarine carrying long-range Polaris missiles, the U.S.S. *George Washington,* changed the character of the threat. The Soviet response to this new threat was, again, massive: an intensive antisubmarine warfare program. New classes of ships were built, including the missile-armed helicopter carriers *Moskva* and *Leningrad.* This program continues today, despite the low probability of its being able to blunt the ability of Polaris and its successors, Poseidon and Trident, to retaliate.

Recognizing the near invulnerability of our Polaris forces, the Soviets were quick to follow suit. Thus, while still pursuing their first naval objective of denying U.S. naval forces access to waters from which to launch attacks on the Soviet homeland, they added a second mission of maintaining their own sea-based strategic attack force. A series of ballistic missile submarines began to emerge from Soviet shipyards.

It was almost inevitable that as the Soviet Navy began to acquire a more diverse set of naval weapons that it would begin to look outward and over the horizon. This was, in part, the logical result of having

[1] The term *tactical cruise missile* refers to a missile designed for limited scale combat use that remains within the atmosphere and generally is guided to its target, either by a self-contained homing device or by external remotely controlled direction. Such missiles today can be launched from many platforms at sea: from submarines when submerged or in some cases when surfaced; from surface combatants ranging from patrol craft to cruisers; and from larger aircraft. Range of attack varies from ten miles to several hundred.

more ships and submarines; but it also reflected a change in outlook toward naval power and what it could do. Soviet strategists had read Mahan and recalled how Great Britain and the United States had successfully supported imperialist adventures with their fleets in the nineteenth and early twentieth centuries. They witnessed permanent U.S. Naval deployments in the Mediterranean and in the Far East almost from the end of World War II. Now Soviet naval capabilities and force levels were reaching a level that would permit similar activity. Indeed, by the mid-1960s, the Soviet fleet had begun to follow Soviet political interests as these expanded around the globe. Thus, in addition to their use of naval forces for denying U.S. access to their waters and maintaining a sea-based strategic deterrent, the Soviets began employing their Navy in support of foreign policy through naval presence in peacetime.

Submarines, because of their covert nature, do not usually support a naval presence mission. Yet by the late 1960s, Soviet submarines as well as surface ships were being employed beyond home waters. It became apparent that the Soviets had recognized that they were capable of cutting sea-lanes—those jugulars through which flow 99 percent of U.S. imported goods—and that they could use that capability to further equalize American and Soviet naval power. During the *Okean* fleet exercise of 1975, the Soviets rehearsed tactics for cutting open-ocean sea-lanes. With the realization of a wide-ranging capability for sea denial, they had progressed from the basic concept of defense of Mother Russia to the more grandiose capability of posing a global offensive threat to free world use of high seas. In less than 30 years, the Soviet Navy had developed from an insignificant coastal defense force to one that aspired to: (1) strategic deterrence; (2) naval presence; and (3) sea denial. Today, in the development of the *Kiev*-class aircraft carrier, we may be seeing an effort to broaden fleet capabilities to add a fourth function, the projection of power ashore. Or, alternatively, the *Kiev* carriers may be intended to provide air cover for Soviet fleet units when operating outside the range of land-based air forces, and thus start the Soviets on the road to a sea assertion capability rather than just sea denial.

IV

The United States, being far more dependent on the seas than the Soviet Union, has since the beginning of the republic recognized the need to use its Navy in a global sense. The fundamental role of our Navy has been sea control. This is the capability to assert one's own use of the seas and to deny that use to others. It has been the same

with the navies of maritime powers ever since the Athenians defeated the Persians at Salamis in 480 B.C. The U.S. Navy concentrated almost exclusively on sea control through the end of World War II.

The Second World War also saw an expansion of our naval capabilities, primarily in the area of amphibious assault, so critical to the island campaign in the Pacific. Naval aircraft from carriers played an important role in supporting the Marines in these operations. These beginnings, and Admiral Halsey's carrier raids on Japan in the closing days of the war, were the seeds for the employment of carrier aircraft in attacks on shore targets at distances remote from the amphibious beachhead.

This trend gained importance particularly in the waning days of World War II, when the U.S. Navy found itself without a credible opponent to contest its use of the seas, and thus without a need for sea control. The atomic bomb seemed to herald an age of technological innovation—conceivably even an end to traditional warfare. The Navy saw the capability of its carrier-based aircraft to deliver atomic weapons to targets deep inland as its main contribution to the future defense needs of the nation, so it aggressively sought and won a role for its carriers in strategic deterrence. More recently, the carrier has conceded this role to the Polaris submarine and redirected its long-range strike capability to power projection ashore with conventional munitions, as in both Korea and Vietnam.

Today, the U.S. Navy's force structure and capabilities enable it to perform in: (1) strategic deterrence; (2) naval presence; (3) sea control (assertion and denial); and (4) projection of power ashore.

The comparative strengths of the two navies are illustrated in the table below.

TABLE I

COMPARISON OF THE CAPABILITIES OF THE U.S. AND SOVIET NAVIES

Mission	Soviet Navy	U.S. Navy
Strategic deterrence	Wide range	Wide range
Naval presence	Wide range	Wide range
Sea control	Denial only	Assertion and denial
Projection of power ashore	Very limited amphibious	Wide ranging tactical air and amphibious

Both navies are employed in strategic deterrence and naval presence; the U.S. Navy also aspires to assert control over the sea areas which the United States and its allies need for commercial and military purposes, while the Soviet Navy is primarily designed to deny that use to others, with some inchoate sea assertion potential; and, finally, the

U.S. Navy has an extensive and sophisticated capability to project power ashore in contrast to the Soviet Navy's very limited ability.

V

How, then, do we compare the total balance of these two navies, given their varying capabilities to perform these different functions? There is no single formula. A first step is to recognize that only forces which oppose each other directly can be compared directly. Generally, neither "projection of power" forces nor "strategic deterrence" forces are designed to be employed against similar forces of an enemy. Therefore, they cannot be usefully compared in quantitative terms. One can only assess whether these forces seem capable of carrying out their purpose against other kinds of opposition. Strategic deterrence forces, for example, do not oppose other strategic deterrence forces. The natural opponents of a Polaris submarine are the enemy's antimissile systems and his sea denial forces, not his ballistic missile submarines. A strategic deterrent force is adequate if it deters the enemy from using nuclear weapons against us. It is facile to compare the 41 American ballistic-missile nuclear submarines with the 62 of the Soviets, for each force represents only a part of the national strategic capability. In another example, amphibious ships do not directly oppose other amphibious ships. Rather, in putting troops on a beach, amphibious ships and landing craft will be opposed by enemy shore defenses. Similarly, in their role of projecting power ashore, carrier-based tactical air forces are pitted against the enemy's varied forms of air defense; their mission is to penetrate to and destroy targets ashore.

On the other hand, forces designed for presence and sea control are intended to counter each other and therefore can be directly compared. "Presence" is the orchestrated use of naval forces below the level of hostility in support of foreign policy. Naval presence tasks range from informal ship visits intended to maintain ties with an ally and formal ship visits to cement a burgeoning friendship, to a menacing patrol just outside a nation's waters. When the United States and the Soviet Union have competing interests in an event or a place—and when they use their navies to demonstrate just how interested they really are—then the relative quantity, quality and character of these forces *in situ* can tip the balance and can affect what happens. Here seapower becomes a direct arm of foreign policy without a shot necessarily being fired. The U.S. Sixth Fleet and the Soviet Mediterranean fleet are such "presence" forces in direct competition along the Mediterranean littoral.

A direct and combative confrontation of naval forces occurs mainly in the "sea control" role. In such a context, numerical comparisons become not only relevant but crucial. Here sea assertion forces are lined up against sea denial forces. Assertive sea control means quite simply that Navy X can move its task units or protect commercial shipping between point A and point B, or remain in position C, against opposition. Denial of sea control is the opposite: Navy Y can prevent Navy X from so moving its forces or successfully protecting its vital commerce.

To see where we stand today with regard to the balance of sea power, it is necessary to separate out projection and deterrence forces—because they are not comparable—and to focus on sea control and naval presence forces.

VI

No navy builds ships primarily for the presence mission. Ship design reflects almost exclusively those qualities needed in battle. Moreover, a ship's fighting capability determines how other governments and navies perceive the weight of that ship's presence. There are fundamentally two threats that the presence of a naval force can imply: to do harm to a nation by projecting power directly onto its territory or to sever a nation's sea lines of communication through blockade or sea denial.

In some instances, the United States and the U.S.S.R. may attempt to use naval presence to threaten each other or, at least, to signal broad intent and resolve. More frequently, American and Soviet presence forces compete against each other in terms of their impact on the actions of a third party. Both fleets, for example, were paraded in the 1970 and 1973 Arab-Israeli crises. The Sixth Fleet implicitly threatened to project power against the Arabs; the Soviet Mediterranean squadron threatened to deny the United States the use of the seas to do that. The issue was not what damage the U.S. carriers could have done in the Middle East or whether the Soviet force could have stopped them, but what impact the threat and counterthreat had on the contemplated actions of all the immediate participants.

The presence force is designed to equalize or counterbalance other forces in an area. Whether or not any particular force succeeds in influencing the actions of others will depend on subjective perceptions which may be based on numbers, on superficial appearances (size of ships, new versus old, etc.), on techniques of employment, or simply on the rhetoric which accompanies the fleet's arrival. That perception

may or may not be an accurate appraisal of what would happen if shells started flying. But if the bluff is called and fighting ensues, presence has failed and must be succeeded either by combat or by backing down.

Two generalizations can be made on the relative potential of the United States and Soviet Navies in the presence mission. U.S. naval presence can threaten a full range of capabilities, both projection of power and sea denial. Soviet naval presence can threaten only sea denial. Nevertheless, though the United States can wield the presence tool more effectively, the Soviets have been playing the game cleverly. Realizing that they are dealing with perceptions, they are gaining maximum advantage from the fact that any change is news. Small improvements in capability can be touted to the unsophisticated as big ones. The new *Kiev*-class carriers, with only short range V/STOL (vertical/short-taxi takeoff and land) aircraft, have far less projection capability than our aircraft carriers, yet they are being portrayed by the Soviets as full-scale aircraft carriers. Change creates the impression of improvement as the Soviets move from little to more. And as our Navy constricts and draws back from traditional deployment patterns, the Soviet Navy has been demonstrating increasingly imaginative and frequent global deployment of forces in response to developments in international politics—as in Angola, Mozambique, the Indian Ocean and West Africa. It seems a confirmation of the claim that we are a declining sea power and that they are a growing and restive one. The invalidity of that claim is academic if it is universally believed.

The nature of the debate in Washington over the budget tends to abet this impression. To ensure adequate appropriations for warfighting needs, our leaders point to the Soviets' naval expansion, their increasing presence in former Western preserves and their dedication to further naval growth. Some distortions are inevitable when complex issues are distilled and simplified for clarity and ease of general understanding; the formidable qualities of the threat are stressed; the available means to counter it perhaps slighted. We run the risk today of losing on the "presence front" unless we counter these negative impressions by exercising care in our public discussions. A doomsday picture convincingly drawn for a congressional budgetary committee may negatively influence other nations' perceptions of our naval effectiveness. And a few extra ships in the budget or at sea may not be enough to overcome an inaccurate perception of weakness.

To sum up: balance in the presence role is based objectively on ships, aircraft, guns and missiles, and subjectively on ideas and im-

pressions. Ultimately, however, genuine warfighting capability remains essential; if the balance becomes truly unfavorable, beholders will be fooled for a while only.

VII

In judging the balance of warfighting capabilities of the U.S. and the Soviet Navies, accurate comparisons can be made only with regard to sea control: our "assertive" versus their "denial" capability. But even here, two considerations make simple numerical comparisons of force levels inadmissible. First, sea denial is essentially guerrilla warfare at sea. The denying naval commander strikes at a time and place of his choosing to achieve maximum surprise; he does not have to stand his ground toe to toe with the enemy but instead hits and runs. In this way a markedly inferior force can successfully thwart a superior force. Sea denial forces can be smaller than sea assertion forces and still do their job. How much smaller? There lies another "balance" question.

Second, the weapons and techniques of denial and assertion differ. The submarine torpedo, and the antiship missile launched from submarines, surface ships or aircraft, are the primary weapons of sea denial. The weapons of sea assertion are those that either directly attack an incoming missile or torpedo, or attack the launch platform before the launch occurs. These weapons range from point-defense guns and missiles employed against the incoming missile, to the whole variety of antisubmarine, antiship and antiaircraft weapons. While generically these latter are principally torpedoes and missiles, most are different in quality and type from those in the sea denial inventory. In addition, deception and decoy are useful defensive techniques in assertive sea control, for if one can avoid meeting the enemy and thereby go on to carry out the mission, one has retained freedom to use the seas. Hence on many grounds strictly numerical comparisons of denial and assertive tactical capabilities seem to require the comparison of incommensurables and can only be misleading.

Computer analysis is a help in getting at this vital estimate. The computer digests the performance data, combined with subjective assumptions relating to state of training, quality of materials, doctrine, weather, morale, and so forth. But the computer model reaches its conclusion using a consistent set of assumptions, whereas in real life a field commander will not adhere to his initial set of assumptions and tactics, especially if he is losing. Hence, with a computer one can be led to false conclusions unless one accepts the results as only part of the picture.

348 FOREIGN AFFAIRS

Informed, subjective judgments are often more accurate. When naval professionals try to assess balance subjectively, they are not asking, "Who's ahead?" but rather, "What are the trends in capabilities?" and, "Can we still undertake the old missions or perhaps take on new missions that were impossible yesterday?" Such professional judgment does use computer analysis, as well as detailed, and often classified, technical information about weaponry and other relevant factors. Still, the unavailability of classified information does not prevent the layman from making informed judgments on the naval balance. Broad trends in capabilities and feasibility of missions are visible to the layman. In analyzing trends, three factors are particularly significant: the rise or fall of numbers and types of warfighting units; any technological developments which increase vulnerability or potency; and such tempering factors as extension or loss of base facilities, national resolve, and alliance solidarity.

VIII

A reasonable approach to judging the trends in relative sea control capabilities today is to select some convenient benchmark in the past and analyze the changes in forces, technology and related factors that have occurred since. Ten years ago, in 1966, the balance of sea control capabilities was clearly favorable to the United States. Traditional guns and bombs constituted the major threat to U.S. naval forces. Today, guns and bombs remain a threat at close range, but missiles launched from submarines, aircraft or ships, and torpedoes launched from nuclear-powered submarines have become the dominant threats to surface forces. Traditionally, the best way to defeat an attack on a force at sea has been to destroy the launch platform before it releases its weapon. But today missiles can be fired at far greater range than could projectiles or bombs, thus lessening the vulnerability of their launch platforms. On the other hand, the cruise missile is really a small aircraft which can more readily be destroyed in flight than bombs and projectiles. But this capability to destroy missiles in flight does not presently offset the advantage to the launch platform of launching from greater range. Given this advantage, we must ask whether any trends in forces or technology have compensated in terms of defending against missiles.

First let us look at the problem of frustrating or destroying a submarine before it can launch a missile. To find the submarine before it can attack, defending forces must move well out from the force being protected. In effect, this enlarges the defensive perimeter around the friendly force, thereby requiring more ships to protect

the same size force. Yet, in the past decade the number of U.S. destroyers has dwindled from 205 to 69, carriers from 15 to 13, and antisubmarine aircraft from about 428 to 132. While from numbers alone it might seem that the Soviet submarine fleet that these forces must counter has also weakened—it has shrunk from 370 in 1966 to about 335 today—Soviet nuclear-propelled submarines have increased by 250 percent, from 40 to 140. Also, the number of Soviet submarines equipped with cruise missiles has more than doubled, from 29 to 66.

In our favor, U.S. nuclear attack submarines, which are qualitatively superior to the Soviets' in several significant respects, have increased from 35 to 65. Other offsetting technological factors to our advantage include improved antisubmarine tactics—principally, the coordination of a variety of improved weapons and sensors. Some very interesting things are going on, but no magical breakthrough has yet made the oceans transparent. Antisubmarine warfare remains a painfully patient struggle for small improvements. That such improvements will offset the growth in the numbers of Soviet missile-firing submarines and the probable improvements in their missiles themselves is something we cannot count on. Antisubmarine warfare has always been a battle of attrition in which numbers matter more as losses mount. Failing new technological strides, the decline in number of our antisubmarine forces is something for foreign policy-makers and the public to think about. Torpedo-firing submarines are easier to locate and attack, true enough, than the missile submarines; they must press in relatively close, permitting us to maintain a smaller defensive perimeter. But the dominant factors remain the growing numbers of Soviet nuclear-powered and missile-firing submarines, and the disadvantage to ourselves of the declining size of our forces to man the perimeters against them.

In sum, in defending against the submarine, the balance can be characterized thus: on our side, more high-quality nuclear submarines and modest improvements in tactics and technology, but declining numbers of escorts; on theirs, increases in numbers both of nuclear submarines and cruise missile-equipped submarines. The balance is slowly tipping against us. We had better watch carefully to see how vigorously the Soviets continue to push their submarine programs and how well our technological and tactical advances progress.

The second aspect of the sea control problem involves the trends in our ability to defeat missile-launching aircraft. The number and quality of Soviet aircraft have remained relatively constant over the past ten years, but, as in the case of the submarine, increased missile range has permitted launches from greater distance. Today, Soviet

aircraft can release a variety of missiles from beyond the reach of our shipboard antiaircraft missile systems. The best counter is often the carrier-based interceptor. While the recently deployed F-14 fighter aircraft with the new, long-range Phoenix antiaircraft missile is a major improvement, there are only 206 in the fleet today to oppose some 1,000 Soviet combat aircraft, several hundred of which are capable of carrying one or two missiles. The formidable capability of the F-14 to engage and kill several targets simultaneously is stretched very thin if the F-14s on the average carrier are required to provide a defense against attack from all points of the compass, 24 hours a day.

In summary, numbers in the air threat picture have remained comparable, while the technological improvements of the F-14/Phoenix have given the United States some measure of advantage, particularly if the direction from which the threat will come can be determined and this valuable air asset is used judiciously. Any substantial increase in numbers of Soviet aircraft capable of firing missiles, either through new production or through reassignment from other tasks, could again tip the balance in their favor.

As to countering the surface threat, both short- and long-range missiles are carried aboard Soviet ships, although two-thirds of the inventory are launchable only at short range. Surface-to-surface missiles are just becoming operational in our fleet. Our primary counters to antisurface threats are submarines, carrier aircraft and shore-based aircraft. Our nuclear-powered attack submarines are more than a match for Soviet antisubmarine capabilities, but many other missions are demanded of them. Our attack aircraft are also limited to approximately 24 per carrier, and their effectiveness against Soviet ships heavily equipped with surface-to-air missiles depends on skillful weaponeering and air tactics.

American success in encounters between surface forces will be highly dependent on the number of submarines and aircraft available, the skill of our pilots, and any help that geography can provide us in terms of having land-based aircraft within range. Our submarines and carriers can quickly stem the tide once the battle has begun if adequate numbers are available, but the Soviets' big advantage here is in their option to launch a preemptive strike. Ships of both navies regularly operate in the vicinity of one another since there are no boundaries at sea. An attack could be launched with virtually no warning from point-blank range. The timeliness and quality of intelligence estimates, and our ability to identify subtle changes in Soviet operational patterns, will determine whether or not the Soviets

can successfully carry out such a preemptive strike. Present trends toward declining numbers of both submarines and carrier aircraft have to be faced in the glare of these facts.

What do all these assessments add up to for the use of our sea control forces? Essentially, the capabilities of missiles have outstripped our ability to defend against them. We are running to keep up, and depending heavily on technology and innovation rather than more ships and aircraft to keep the balance from shifting against us. For the United States, better airplanes, better sonars, and aggressive and creative tactics all count for more than a simple numbers comparison would imply. Thus the U.S. Navy can still successfully assert sea control; but in areas where the enemy can concentrate we must allocate a higher percentage of our total forces than before, almost always include an aircraft carrier, depend more and more on tactical initiative, and accept a higher risk.

IX

What then can be said of the naval balance today? Was the position of clear superiority that we enjoyed a decade ago necessary to ensure our national safety then? Is it necessary now? As the Soviet Navy drives to close the gap, are we losing too much? Is balance—or "rough equivalency"—in effect a canceling of naval power? The answers to these questions lie in responding to the two questions asked earlier: What do we want to achieve with our naval power? And what does our present naval capability permit us to achieve?

A favorable naval balance reduces our risk in carrying out the national will. The less favorable the balance, the greater the risk. Between the two extremes there is latitude for varying acceptable degrees of naval balance. The degree of acceptability depends on judgments which transcend the power of military men, but on them hinges all the meaning in the naval balance argument. For instance, the Chief of Naval Operations recently stated that our fleets in the Pacific could hold open the sea-lanes to Hawaii and Alaska, but, by reason of shortage of sea control forces and mobile logistic support forces, we would have difficulty projecting our lines of communication into the Western Pacific. Is this realistic delimitation of our Pacific options acceptable? If not, we have lost too much; the balance has tipped too far. There have been conflicting judgments regarding the U.S. Sixth Fleet's ability to operate in the easternmost Mediterranean in the face of a determined counter-effort by the Soviets. The balance must be a very delicate one if informed professional disagreement exists, as it does. This being the case, we should be alert to any

factors that would change the balance, such as Soviet access to North African air bases. A move such as this might well tip the delicate balance against the Sixth Fleet, heightening the risk. Would that be nationally acceptable? Unless comparative naval power is measured specifically against such considerations of what navies are required to do, discussions of their relative strengths are academic.

Does public discussion of this major issue—how the naval balance affects national purpose—proceed in this sober and objective way? Not exactly. Today's senior naval professional, for instance, grew up during the U.S. Navy's period of overwhelming superiority, from 1945 to 1965. The progressive decline in that superiority since 1965 has reduced the chances that he can carry out successfully the mission to which he is solemnly dedicated; the more conscientious he is, the more these trends disturb him. Civilian thinkers, in turn, are not providing the help that they could. The estrangement of much of the intellectual and academic segment of our society from the professional military over the Vietnam War has damaged the respectability of defense as a worthy area of discussion, writing and study. Détente has been misinterpreted by some as a license to drop national security issues entirely, except when pursuing the transfer of funds from defense to areas of social and economic concern. Yet, the phenomenon of détente, which has allowed us to divert attention to these pressing social needs, stemmed from the very success of our military posture. Finally, and unfortunately, a historic fixation with the numbers game, stemming from the naval treaties of the 1920s, mires public discussion in fruitless debate on the wrong issues. That the United States built 122 ships over 3,000 tons in the last 15 years and the U.S.S.R. only 57, as recently reported, has no meaning by itself, other than to refute another set of illogical statistics, such as was recently reported in a respected news magazine, that the Soviet Navy totals more than 3,300 ships and the U.S. Navy 478. This latter comparison requires counting every 75-foot tugboat and barge and comparing it to who knows what.

There can and should be reasonable debate on naval force structure. It should be a three-step process. Step one is to size up our naval strategic deterrent forces on the basis of what constitutes a credible deterrent, not on the basis of the size of Soviet deterrent forces. This requires military judgments relating, for example, to their survivability in the face of Soviet countermeasures, but also judgments quite outside purely military calculations; for instance, would having a hard-target kill capability at sea as well as a city-destroying potential be redundant or reinforcing to a President and his Secretary of State?

Moreover, the naval element is only one part of our total resources for strategic deterrence. How big a part does the nation want it to be?

Step two is to size up our several kinds of forces for the projection of power on the basis of our overseas interests and commitments. Again, the process commences with a review of nonmilitary considerations, including such questions as how much do we want to rely on the use of the bases of allies overseas. From such evaluations, and in the context of the total national capability for projecting power, a calculation of the need for carrier, amphibious and gunfire forces can be made.

Step three, the one I have been emphasizing, is to assess the naval balance in the areas of naval presence and sea control, placing greater emphasis on trends: where we and both our friends and our potential enemies seem to be going. The key here is to compare like forces. This not only means eliminating strategic and power projection forces from our consideration, but also comparing a given type of force with the full range of forces that may confront it, that is, not a submarine versus a submarine, but a submarine versus aircraft, destroyers and mines as well. Complications will stem from the dual or even triple capability of some naval forces; for example, the attack aircraft from a carrier can threaten with nuclear weapons (strategic deterrence), attack land targets with conventional ordnance (power projection), and sink enemy surface ships (sea control). This sort of multiple capability vexes calculation, but at the same time sheds light on why various weapons are needed. Beyond these assessments of relative capability we must delve further to ask whether any technical, geographic or other non-naval factors offset numerical force trends. The inaccessibility of classified data, the level of technological expertise, and the extent of experience at sea—which enter all such evaluations—will directly influence the quality of civilian judgment. But, we live in an open society. The press probes. Congress investigates. Searching questions are good, if not always comfortable, for the soul. Such dialogue works in its abrasive way. Professional opinion is pressed hard on the technical military issues; civilian opinion has to think hard on matters of national policy; and from this interaction arises the consensus essential to the support of whatever level of naval forces is selected.

The decisions of today in matters of naval hardware will not take effect for four to ten years, and will shape our naval posture for several decades thereafter. The same is true for the Soviets. Thus if we elect to move in one direction and they in another, it could result in a dramatic difference in a decade or so. On the one hand, we could fall

hopelessly behind; on the other, we could strike out in some new direction and be way ahead as a result. Our decisions on whether to maintain a balance, to what degree, and in what missions, must gauge the long-range trends.

Focus on trends rather than statistics will make the dialogue on the naval balance more substantial and productive. A miscalculation, especially in the area of sea control, could bring serious consequences. Our survival and that of our allies in war depend on the vital sea links between us, and these are ensured largely by our naval power.

The perception by allies, neutrals and opponents of our will and capacity to control those sea-lanes, if necessary, can tip the scales of political actions in peacetime. Assessing the naval balance in sound terms thus directly touches our nation's safety. A sensible approach will be to ask not, "Who is ahead?" but to determine whether our naval forces in hand, considering the other forces on the planet, can carry out our national purpose—which is principally to keep the peace if we can, and if we cannot, to protect ourselves from storms, and to help our friends to protect themselves.

This age of supertechnology may one day make all preparation for warfare utterly obsolete. Some thinkers would have us concede that it already has. But while the Soviet Union, a latecomer as a sea power on the world stage, exhibits many traits of nineteenth-century imperialism exercised with all the resources of supertechnology, the U.S. Navy has a mission; and it would behoove all the nation's best minds to help us define it and carry it out.